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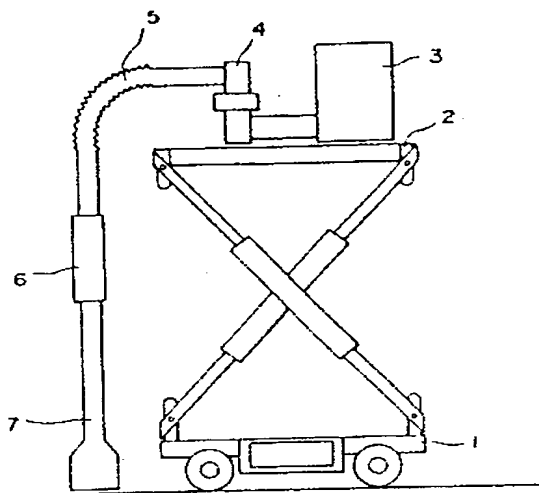
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TITLE : PEELING-OFF DEVICE FOR
RADIOACTIVELY CONTAMINATED
CONCRETE SURFACE LAYER PART
BY MICROWAVE IRRADIATION



ABSTRACT : PURPOSE: To crack and peel the contaminated concrete surface layer part by irradiating the concrete with a microwave and heating the concrete locally and speedily.

CONSTITUTION: The device is put close to the concrete surface to be broken and peeled by a moving device, an up-down moving mechanism 2 is operated to hold a microwave generator 3 at necessary height, and waveguides 4, 5 and 6 are operated to determine the distance a microwave radiation direction and the distance between the tip of an electromagnetic horn 7 and the concrete surface. Then microwave power from the microwave generator 3 is radiated into the concrete surface from the electromagnetic horn 7 and the microwave penetrates the concrete to heat water in the concrete. Consequently, the steam pressure in the concrete rises and thermal stress strain is generated between a heated part and a peripheral part by the local heating to break and peel the surface layer part. Its broken pieces and dust are sucked simultaneously with the breaking and removed away.

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